

TABLE OF CONTENTS

LIST OF TABLES iv

LIST OF FIGURES..... vi

LIST OF ABBREVIATIONS AND ACRONYMS viii

EXECUTIVE SUMMARY ES-1

1.0 PROJECT AND AGENCY INFORMATION 1-1

1.1 PROJECT TITLE 1-1

1.2 LEAD AGENCY AND PROJECT SPONSOR 1-1

1.3 PROJECT LOCATION..... 1-1

1.4 ORGANIZATION OF MITIGATED NEGATIVE DECLARATION..... 1-1

1.5 PROJECT BACKGROUND AND OBJECTIVES..... 1-2

1.6 PUBLIC REVIEW AND COMMENT..... 1-3

1.7 APPROVALS AND REGULATORY REQUIREMENTS 1-3

2.0 PROJECT DESCRIPTION 2-1

2.1 NEED FOR PROJECT..... 2-1

2.2 PROJECT COMPONENTS 2-3

2.2.1 North Landing at Sherman Island..... 2-3

2.2.2 South Landing at Lauritzen Yacht Harbor 2-6

2.2.3 Pipeline Crossings - San Joaquin River 2-9

2.2.4 Shore Base 2-11

2.3 CONSTRUCTION PROCEDURES..... 2-11

2.3.1 North Landing at Sherman Island..... 2-11

2.3.2 South Landing at Lauritzen Yacht Harbor 2-18

2.3.3 Pipeline Crossings - San Joaquin River 2-19

2.4 EQUIPMENT AND PERSONNEL REQUIREMENTS 2-22

2.5 PROJECT SCHEDULE..... 2-24

3.0 ENVIRONMENTAL CHECKLIST AND ANALYSIS 3-1

3.1 AESTHETICS 3-3

3.1.1 Environmental Setting 3-3

3.1.2 Regulatory Setting..... 3-4

3.1.3 Impact Analysis 3-5

3.2 AGRICULTURE AND FOREST RESOURCES 3-7

3.2.1 Environmental Setting 3-7

3.2.2 Regulatory Setting..... 3-8

3.2.3 Impact Analysis 3-11

3.2.4 Mitigation Summary 3-12

3.3 AIR QUALITY 3-13

3.3.1 Environmental Setting 3-13

3.3.2	Regulatory Setting.....	3-15
3.3.3	Impact Analysis.....	3-20
3.3.4	Mitigation Summary.....	3-24
3.4	BIOLOGICAL RESOURCES.....	3-25
3.4.1	Environmental Setting.....	3-25
3.4.2	Regulatory Setting.....	3-43
3.4.3	Impact Analysis.....	3-50
3.4.4	Mitigation Summary.....	3-58
3.5	CULTURAL AND PALEONTOLOGICAL.....	3-59
3.5.1	Environmental Setting.....	3-59
3.5.2	Regulatory Setting.....	3-61
3.5.3	Impact Analysis.....	3-64
3.5.4	Mitigation Summary.....	3-66
3.6	GEOLOGY AND SOILS.....	3-67
3.6.1	Environmental Setting.....	3-67
3.6.2	Regulatory Setting.....	3-70
3.6.3	Impact Analysis.....	3-71
3.6.4	Mitigation Summary.....	3-72
3.7	GREENHOUSE GAS EMISSIONS.....	3-73
3.7.1	Environmental Setting.....	3-73
3.7.2	Regulatory Setting.....	3-75
3.7.3	Impact Analysis.....	3-76
3.7.4	Mitigation Summary.....	3-78
3.8	HAZARDS AND HAZARDOUS MATERIALS.....	3-79
3.8.1	Environmental Setting.....	3-79
3.8.2	Regulatory Setting.....	3-80
3.8.3	Impact Analysis.....	3-84
3.8.4	Mitigation Summary.....	3-88
3.9	HYDROLOGY AND WATER QUALITY.....	3-89
3.9.1	Environmental Setting.....	3-90
3.9.2	Regulatory Setting.....	3-93
3.9.3	Impact Analysis.....	3-96
3.9.4	Mitigation Summary.....	3-102
3.10	LAND USE AND PLANNING.....	3-103
3.10.1	Environmental Setting.....	3-103
3.10.2	Regulatory Setting.....	3-104
3.10.3	Impact Analysis.....	3-105
3.10.4	Mitigation Summary.....	3-106
3.11	MINERAL RESOURCES.....	3-107
3.11.1	Environmental Setting.....	3-107

3.11.2	Regulatory Setting.....	3-108
3.11.3	Impact Analysis.....	3-109
3.11.4	Mitigation Summary	3-109
3.12	NOISE.....	3-110
3.12.1	Environmental Setting.....	3-110
3.12.2	Regulatory Setting.....	3-112
3.12.3	Impact Analysis.....	3-115
3.12.4	Mitigation Summary	3-116
3.13	POPULATION AND HOUSING	3-117
3.13.1	Environmental Setting.....	3-117
3.13.2	Regulatory Setting.....	3-117
3.13.3	Impact Analysis.....	3-118
3.13.4	Mitigation Summary	3-118
3.14	PUBLIC SERVICES.....	3-119
3.14.1	Environmental Setting.....	3-119
3.14.2	Regulatory Setting.....	3-120
3.14.3	Impact Analysis.....	3-121
3.14.4	Mitigation Summary	3-121
3.15	RECREATION	3-122
3.15.1	Environmental Setting.....	3-122
3.15.2	Regulatory Setting.....	3-123
3.15.3	Impact Analysis.....	3-124
3.15.4	Mitigation Summary	3-124
3.16	TRANSPORTATION/TRAFFIC.....	3-125
3.16.1	Environmental Setting.....	3-125
3.16.2	Regulatory Setting.....	3-131
3.16.3	Impact Analysis.....	3-133
3.16.4	Mitigation Summary	3-136
3.17	UTILITIES AND SERVICE SYSTEMS.....	3-137
3.17.1	Environmental Setting.....	3-137
3.17.2	Regulatory Setting.....	3-138
3.17.3	Impact Analysis.....	3-138
3.17.4	Mitigation Summary	3-140
3.18	MANDATORY FINDINGS OF SIGNIFICANCE	3-141
3.18.1	Impact Analysis.....	3-141
4.0	OTHER MAJOR AREAS OF CONCERN	4-1
4.1	CSLC ENVIRONMENTAL JUSTICE POLICY	4-1
4.1.1	Methodology	4-2
4.1.2	Project Analysis.....	4-2
4.1.3	Impact Analysis.....	4-4

4.1.4	Mitigation Summary	4-6
5.0	MITIGATION MONITORING PROGRAM	5-1
5.1	PURPOSE	5-1
5.2	ENFORCEMENT AND COMPLIANCE	5-1
5.3	MONITORING	5-1
5.3.1	Environmental Monitors	5-1
5.3.2	Workforce Personnel.....	5-2
5.3.3	General Reporting Procedures	5-2
5.3.4	Public Access to Records	5-2
5.4	MITIGATION MONITORING TABLE	5-2
6.0	MND PREPARATION SOURCES AND REFERENCES	6-1
6.1	CSLC STAFF	6-1
6.2	SECTION AUTHORS AND/OR REVIEWERS	6-1
6.3	REFERENCES CITED.....	6-1

APPENDICES

- Appendix A Project Execution Plan (Longitude 123)
- Appendix B Air Quality and Greenhouse Gas Calculations
- Appendix C Fugro West Desktop Study (2006)
- Appendix D Biological Reconnaissance Report – Padre (2015)
- Appendix E Comment Letters

LIST OF TABLES

Table ES-1.	Summary of Proposed Areas of Disturbance	1
Table ES-2.	Environmental Issues and Potentially Significant Impacts.....	3
Table ES-3.	Summary of Mitigation Measures	4
Table 1-1.	Other Agencies with Review/Approval over Project Activities	1-4
Table 2-1.	Pipeline Overview	2-1
Table 2-2.	Summary of Proposed Areas of Disturbance	2-3
Table 2-3.	Debris Survey - Equipment and Personnel Requirements	2-23
Table 2-4.	North Landing Decommissioning - Equipment and Personnel Requirements	2-23
Table 2-5.	South Landing Decommissioning - Equipment and Personnel Requirements	2-23

Table 2-6. Submarine Pipeline/River Crossings Removal Operations - Equipment and Personnel Requirements 2-24

Table 3.1-1. Laws, Regulations, and Policies (Aesthetics)..... 3-4

Table 3.2-1. Laws, Regulations, and Policies (Agriculture and Forest Resources) 3-8

Table 3.3-1. Laws, Regulations, and Policies (Air Quality)..... 3-15

Table 3.3-2. Ambient Air Quality Standards (State and Federal) 3-17

Table 3.3-3 Criteria Air Pollutants Significance Thresholds..... 3-20

Table 3.3-4. Estimated Criteria Pollutant by Phase - Total Project Emission 3-21

Table 3.4-1. Habitat Types and Acreage Within the Total Project Area 3-26

Table 3.4-2 Wildlife Species Observed at the Project Site 3-26

Table 3.4-3. Potential Special-Status Species within the Project Area..... 3-28

Table 3.4-4. Laws, Regulations, and Policies (Biological Resources)..... 3-43

Table 3.4-5. Local Laws, Regulations, and Policies (Biological Resources) 3-45

Table 3.5-1. Laws, Regulations, and Policies (Cultural Resources)..... 3-62

Table 3.6-1. Laws, Regulations, and Policies (Geology and Soils) 3-70

Table 3.7-1. Laws, Regulations, and Policies (GHGs) 3-75

Table 3.7-2. Estimated GHG Total Project Emissions..... 3-77

Table 3.8-1. Laws, Regulations, and Policies (Hazards and Hazardous Materials) ... 3-80

Table 3.9-1. Causes of Water Quality Impairment for Reporting Year 2010 3-91

Table 3.9-2. Laws, Regulations, and Policies (Hydrology and Water Quality)..... 3-93

Table 3.11-1. Laws, Regulations, and Policies (Mineral Resources) 3-108

Table 3.12-1. Common Sound Levels/Sources and Subjective Human Responses 3-111

Table 3.12-2. Laws, Regulations, and Policies (Noise) 3-112

Table 3.12-3. City of Oakley Noise Standards 3-114

Table 3.13-1. Population and Housing Summary 3-117

Table 3.14-1. Laws, Regulations, and Policies (Public Services)..... 3-120

Table 3.16-1. City of Oakley Traffic Data for Wilbur Road at Bridgehead Road and SR 160 On/Off-Ramps..... 3-128

Table 3.16-2. Caltrans Traffic Data for SR 160 within the Project Area 3-129

Table 3.16-3. Federal and/or State Laws, Regulations, and Policies Potentially Applicable to the Project (Transportation/Traffic)..... 3-131

Table 4-1. U.S. Census Regional Demographic Comparison Table 4-4

Table 4-2. Socioeconomic Comparison of Affected Environment 4-4

LIST OF FIGURES

Figure ES-1. Project Site Location ES-2

Figure 2-1. Project Site Map - Overview..... 2-2

Figure 2-2. North Landing Areas of Disturbance 2-4

Figure 2-3. North Landing Photographs 2-5

Figure 2-4. South Landing Areas of Disturbance 2-7

Figure 2-5. South Landing Photographs..... 2-8

Figure 2-6. San Joaquin River - Pipeline Crossing Area of Disturbance 2-10

Figure 2-7. Tentative Shore Base Location 2-12

Figure 2-8. Cementing Landside Terrestrial Levee Segment (Northern Landing) 2-14

Figure 2-9. Landside Terrestrial Levee Segment Excavation and Removal..... 2-15

Figure 2-10. Waterside Terrestrial and Shoreline Segment Excavation and
Removal..... 2-15

Figure 3.2-1. Important Farmland Map..... 3-9

Figure 3.4-1A. Habitat Types North Landing 3-36

Figure 3.4-1B. Habitat Types South Landing 3-37

Figure 3.4-2. View of North Landing Foreshore 3-39

Figure 3.4-3. View of South Landing Foreshore 3-39

Figure 3.4-4. View Along North Slope of Levee at North Landing. Pipeline Vault
at Right 3-40

Figure 3.4-5. View Along Boat Trailer Storage Over Buried Pipeline at
South Landing..... 3-40

Figure 3.4-6. Special-Status Species Occurrences 3-42

Figure 3.16-1. Northern Landing Onshore Ingress/Egress Route 3-126

Figure 3.16-2. Southern Landing Onshore Ingress/Egress Route..... 3-127

Figure 3.16-3. Vessel Traffic Lanes..... 3-130

LIST OF ABBREVIATIONS AND ACRONYMS

°F	Degrees Fahrenheit
μ	micron
μg	microgram
μPa or rms	microPascals
A AADT	annual average daily traffic
AB	Assembly Bill
ABAG	Association of Bay Area Governments
af	artificial fill
AG	Agricultural zoning or land designation
AHPA	Archaeological and Historic Preservation Act
AQAP	Air Quality Attainment Plan
AQMD	Air Quality Management District
ARPA	Archaeological Resources Protection Act
B BAAQMD	Bay Area Air Quality Management Board
BMP	Best Management Practice
BP	before present time
C CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCTA	Contra Costa Transportation Authority
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive, Environmental Response, Compensation and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH ₄	methane
City	city of Oakley
CMP	Congestion Management Program
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent

COLREGS	Convention on the International Regulations for Preventing Collisions at Sea
CRHR	California Register of Historic Resources
CRPR	California Rare Plant Ranks
CSLC	California State Lands Commission
CTP	Countywide Comprehensive Transportation Plan
CVFPB	Central Valley Flood Protection Board
CWA	Clean Water Act
CWP	Contra Costa County Watershed Program
cy	cubic yards
D dB	decibel
dBA	A-weighted decibels
DDT	dichlorodiphenyltrichloroethane
DEPM	Division of Environmental Planning and Management
DGPS	Differential global positioning system
DOGGR	Division of Oil, Gas, and Geothermal Resources
DPC	Delta Protection Commission
DTSC	Department of Toxic Substances Control (California Environmental Protection Agency)
E ECCC	East Contra Costa County
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
F FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
G GHG	Greenhouse Gas
H H ₂ S	hydrogen sulfide
HCP/NCCP	Habitat Conservation Plan/Natural Community Conservation Plan
HMTA	Hazardous Materials Transportation Act
hp	horsepower
I IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
L L _{dn}	day-night average sound level
Leq	average sound level over a specified period of time
LOS	Level of Service
MMP	Mitigation Monitoring Program
M MM	Mitigation measure
MMT	Million metric tons
MND	Mitigated Negative Declaration
MP	mile post

MT	metric ton
N N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAVD88	North American Datum of 1988
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
No	Number
NO	nitric oxide
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
O O ₃	ozone
Occ.	Occurrence
OPA	Oil Pollution Act
OSHA	Occupational Safety and Health Administration
OSPR	Office of Spill Prevention and Response
OSRP	Oil Spill Response Plan
P Pb	Lead
PCBs	polychlorinated biphenyls
PEP	Project Execution Plan
PG&E	Pacific Gas and Electric
PM	particulate matter
PM ₁₀	particulate matter less than 10 micrometers
PM _{2.5}	particulate matter less than 2.5 micrometers
ppm	parts per million
Q Qds	Eolian dune deposits
Qhpm	Holocene-age peat and muddy peat
R RCRA	Resource Conservation and Recovery Act
RD	Reclamation District
ROC	reactive organic compound
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
S SR	State Route
SARA	Superfund Amendments and Reauthorization Act
SFBAAB	San Francisco Bay Area Air Basin
SHPO	State Historic Preservation Office
SJVAB	San Joaquin Valley Air Basin

	SMAQMD	Sacramento Metropolitan Air Quality Management District
	SO ₂	sulfur dioxide
	SVAB	Sacramento Valley Air Basin
	SWRCB	State Water Resources Control Board
T	TAC	toxic air contaminant
	TMDL	total maximum daily loads
	TSCA	Toxic Substances Control Act
U	U.S.	United States
	USACE	U.S. Army Corps of Engineers
	USC	United States Code
	USCG	U.S. Coast Guard
	USDOT	U.S. Department of Transportation
	USEPA	U.S. Environmental Protection Agency
	USFWS	U.S. Fish and Wildlife Service
	USGS	U.S. Geological Survey
V	V/C	volume-to-capacity ratio
	VTSS	Vessel Traffic Service
W	WEAP	Worker Environmental Awareness Program
	WL	Watch List